

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Currently Amended) A plant for handling and stacking thermoformed containers or lids having at least three projections (~~8a, 8b~~) acting as stacking spacers, at least one of which is arranged at non specular symmetry with respect to at least a centre line (~~m-m~~) of the respective container or lid (2), said plant (~~1~~) including, in sequence, a receiving station (~~3~~) for a container or lid or a moulding of containers or lids (2), at least a stacking or working station (~~6~~) for said containers or lid (2), a stacking station (4) for said containers or lids (2), means (~~5, 50~~) of transferring the containers or lids (2) from the receiving station (~~3~~) to the stacking station (4) through each working or handling station (~~6~~), and is characterized in that at least one of the said handling stations (~~6~~) includes handling means (~~17~~) arranged to rotate through a predetermined angle every other moulding of containers or lids (2) before or during their transfer to said stacking station (4), thereby obtaining stacks (~~7~~) of lids or containers (2), where the stacking spacers (~~8a, 8b~~) of a container or lid (2) are angularly offset with respect to those of the next container or lid.

5. (Currently Amended) A plant according to claim 4, wherein said handling means are comprises a support structure (~~15, 16~~) and a head or unit (~~17~~) for picking up samples of a moulding of thermoformed products (2), which is rotatably supported rotatably and can be lift and

lowered on said support structure ~~(15,16)~~.

6. (Currently Amended) A plant according to claim 5, wherein said picking up unit ~~(17)~~ comprises a support member ~~(19)~~ rotatably mounted around a vertical axis on said support structure ~~(15,16)~~, a multiplicity of spacers ~~(20)~~ carried by said support member ~~(19)~~ and extending downwards, and a holding means ~~(21)~~ carried by each said spacer ~~(20)~~ and spaced apart with respect to the remaining holding means ~~(21)~~ according to the configuration of a moulding of thermoformed products ~~(2)~~ transported by said transfer means ~~(5,50)~~.

7. (Currently Amended) A plant according to claim 6, wherein said holding means ~~(21)~~ includes suckers.

8. (Currently Amended) A plant according to claim 6, including a geared motor unit ~~(18)~~ for controlled rotation of said support member ~~(19)~~.

9. (Currently Amended) A plant according to claim 6, wherein said support structure includes a fixed support ~~(16)~~, an overhanging arm ~~(15)~~ having one end thereof slidably mounted along at least a vertical guide ~~(16a)~~ on said fixed support ~~(16)~~, and drive means ~~(16b,16c)~~ to cause said overhanging arm controllably to lift and lower.

10. (Currently Amended) A plant according to claim 6, wherein said handling means includes a robot ~~(60)~~ having at least an overhanging arm ~~(15)~~ mounted for rotation either around a horizontal axis to carry out raising -lowering movements for said support member ~~(19)~~ or around a vertical axis to transfer mouldings of thermoformed products ~~(2)~~ away from said transfer means ~~(5,50)~~.

11. (Currently Amended) A plant according to claim 10, wherein said robot comprises drive means ~~(62)~~ and guide means ~~(65)~~ to carry out movements from and to said handling station ~~(6)~~.

12. (Currently Amended) A plant according to claim 4, wherein said handling means include at least a support template (~~9a-12a~~) for a moulding of thermoformed objects (~~2~~), a support frame (~~39-42~~) carried by said transfer means (~~5,50~~) for each support template (~~9a-12a~~) and having a circular opening at which a respective template (~~9a-12a~~) is rotatably mounted, and drive means for causing said template (~~9a-12a~~) controllably to rotate upon control.

13. (Currently Amended) A plant according to claim 4, wherein said transfer means comprises at least one rotating conveyer (~~5~~) with a plurality of arms (~~9-12~~).

14. (Currently Amended) A plant according to claim 4, wherein said transfer means comprises at least one linear conveyer (~~50~~).

15. (Currently Amended) A plant according to claim 13, comprising a single station thermoforming press (~~31~~) with cut and form mould (~~32~~) having a suction plate (~~30~~) for picking up thermoformed objects (~~2~~) thermoformed therein and arranged to discharge mouldings of thermoformed products (~~2~~) at said receiving station (~~3~~).